

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1-39. (Canceled)

40. (Currently Amended) A beam scanner, comprising:
a plurality of light sources operable to emit a plurality of respective beams of light; and
at least one beam deflector aligned to receive the plurality of beams of light from the
plurality of light sources and operable to scan the beams in at least two dimensions
including a fast scan axis and a slow scan axis across respective overlapping regions of a
field of view.

41. (Previously Presented) The beam scanner of claim 40, wherein the
plurality of light sources includes a plurality of light emitting diodes.

42. (Previously Presented) The beam scanner of claim 41, wherein the
plurality of light emitting diodes are operable to produce a plurality of colors of light.

43. (Currently Amended) The beam scanner of claim ~~43~~ 42, wherein
the plurality of light emitting diodes are operable to produce a plurality of beams in each
of the plurality of colors of light.

44. (Previously Presented) The beam scanner of claim 40, wherein the
plurality of light sources are operable to vary the intensity of the plurality of beams.

45. (Previously Presented) The beam scanner of claim 44, wherein the
plurality of light sources are operable to vary the intensity of the plurality of beams to
blend overlapping regions of the field of view.

46. (Currently Amended) The beam scanner of claim 45, wherein the light sources are operable to produce pixels, and data corresponding to pixel values is scaled to limit the intensity of overlapping pixels in the overlapping regions of the ~~filed~~ field of view.

47. (Previously Presented) The beam scanner of claim 40, wherein the at least one beam deflector is a single beam deflector.

48. (Previously Presented) The beam scanner of claim 40, wherein the at least one beam deflector includes a microelectromechanical (MEMs) scanner.

49. (Currently Amended) The beam scanner of claim ~~48~~ 40, wherein ~~the microelectromechanical (MEMs) scanner is operable to scan the plurality of beams in~~ at least two dimensions overlapping regions of the field of view are arranged such that each region extends along a dimension corresponding to the fast scan axis and overlaps with at least one region adjacent in a dimension corresponding to the slow scan axis.

50. (Previously Presented) The beam scanner of claim 49, wherein the overlapping regions of the field of view are arranged such that each region extends horizontally across substantially the entire field of view and overlaps with at least one vertically adjacent regions.

51. (Previously Presented) The beam scanner of claim 40, wherein the overlapping regions are substantially distinct and overlap slightly.

52. (Currently Amended) A method for blending illuminated regions in a field of view, comprising the steps of:

- generating a plurality of beams of light;
- directing the plurality of beams of light toward a scanner;

scanning the plurality of beams of light across a field of view along fast scan and slow scan axes, whereby wherein each of the plurality of scanned beams illuminates a respective region of the field of view that overlaps with at least one other of the respective regions adjacent in a dimension corresponding to the slow scan axis; and
modulating the intensity of each of the plurality of beams of light to compensate for the illumination energy produced by the other beams.

53. (Previously Presented) The method for blending illuminated regions in a field of view of claim 52, further comprising the step of:
modulating the intensity of the beams to produce an image on the field of view.

54. (Previously Presented) The method for blending illuminated regions in a field of view of claim 52, wherein the illuminated field of view includes an image plane in a display.

55. (Previously Presented) The method for blending illuminated regions in a field of view of claim 54, wherein the image plane includes the retina of a user.

56. (Previously Presented) The method for blending illuminated regions in a field of view of claim 54, wherein the image plane includes a projection screen.

57. (Previously Presented) The method for blending illuminated regions in a field of view of claim 56, wherein the projection screen is a rear projection screen.

58. (Previously Presented) The method for blending illuminated regions in a field of view of claim 56, wherein the projection screen is a front projection screen.

59. (Previously Presented) The method for blending illuminated regions in a field of view of claim 52, further comprising the steps of:

receiving a image for display; and

modulating the intensity of the plurality of beams of light to produce an illuminated pattern in the field of view corresponding to the image.

60. (Previously Presented) The method for blending illuminated regions in a field of view of claim 59, wherein the illuminated pattern is formed from pixels generated by the plurality of beams of light.

61. (Currently Amended) An image capture device, comprising:

a beam scanner operable to scan a plurality of beams across respective regions of a field-of-view, the regions having at least two dimensions corresponding to a fast scan axis and a slow scan axis, wherein each of the plurality of regions at least partially overlaps at least one other region aligned in a dimension corresponding to the slow scan axis;

a detector aligned to receive beam energy scattered from the field-of-view and output an electrical signal corresponding to the received energy; and

a controller coupled to receive the electrical signal from the detector and output a representation of the received beam energy.

62. (Previously Presented) The image capture device of claim 61, further comprising:

a mechanical housing that encloses the beam scanner, detector and controller.

63. (Previously Presented) The image capture device of claim 62, wherein the mechanical housing includes a window for transmitting and receiving light energy.

64. (Previously Presented) The image capture device of claim 61, wherein the plurality of beams are encoded to make them distinct.

65. (Previously Presented) The image capture device of claim 64, wherein the plurality of beams are produced at two or more distinct wavelengths.

66. (Previously Presented) The image capture device of claim 64, wherein the plurality of beams are modulated at carrier frequencies.

67. (Previously Presented) The image capture device of claim 64, wherein the plurality of beams are emitted sequentially.

68. (Currently Amended) The image capture device of claim 61, ~~wherein the plurality of beams are scanned across a respective plurality of regions of the field of view~~ wherein a dimension corresponding to the fast scan axis is aligned substantially horizontally and a dimension corresponding to the slow scan axis is aligned substantially vertically.

69. (Currently Amended) The image capture device of claim ~~68~~ 61, wherein the plurality of respective regions at least partially overlap over at least a portion of a depth-of-field.

70. (Currently Amended) The image capture device of claim ~~69~~ 61, wherein the controller is operable to stitch together data corresponding to the plurality of regions.

71. (Currently Amended) A scanned beam display, comprising:
a controller operable to receive an image signal and generate a control signal having plural instances of at least some pixels; and
a beam scanner coupled to receive the control signal from the controller and operable to scan a plurality of at least partially overlapping beams across respective regions of a field-of-view, the regions having at least two dimensions corresponding to a fast scan axis and a slow scan axis, wherein each of the plurality of regions at least

partially overlaps at least one other region aligned in a dimension corresponding to the slow scan axis.

72. (Previously Presented) The scanned beam display of claim 71, wherein the plural instances of pixels correspond to the regions of beam overlap.

73. (Previously Presented) The scanned beam display of claim 72, wherein each beam contributing to an overlapping region receives a scaled portion of the energy allocated to each pixel in the overlapping region.

74. (Previously Presented) The scanned beam display of claim 73, wherein the scaled portion of energy allocated to each pixel is selected to blend the overlapping region.

75. (Previously Presented) The scanned beam display of claim 72, wherein the controller is operable to cause scaling of power delivered to each of the plural instances of pixels.

76. (Currently Amended) The scanned beam display of claim ~~45~~ 75, wherein the scaling of power is operative to blend the at least partially overlapping beams.

77. (Previously Presented) The scanned beam display of claim 71, further comprising:
a screen aligned to receive the scanned beams.

78. (Previously Presented) The scanned beam display of claim 77, wherein the screen is a projection screen for viewing by an observer.

79. (Previously Presented) The scanned beam display of claim 78,
further comprising:

a beam expander aligned to receive the scanned beams and operable to project
beamlets to the eye of an observer.